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Technology and Intervention:
The Negative Impact on Future Leader Development

by

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A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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15. Abstract:

Technology provides exciting changes to the many systems we use in the military. It has eased communicating to any part of the commanders' span of control immensely. One negative aspect that this has produced is its effect on developing future leaders. Since communications have been eased, they are used to intervene into subordinates' affairs. This practice has and will become even more of a practice. The result is a shift in the real or perceived tenet of "decentralized control." Another possible ramification of this practice is that it limits the chance for junior military officers to make independent decisions, and builds dependence.

Through education this problem can be solved. A strong foundation based on a wide variety of subjects should be promoted throughout the military in order to give the individual the tools to make the right decision, no matter what the situation brings. Most of the problems of the future will be the same as in the past, requiring moral courage, broad intellect, and flexibility that is not always learned through a technologically based education and training background.

If the military becomes overly infatuated with technology and its promises, the changes in culture and the weakening of leadership development could happen slowly, without warning. With an eye on the past, the future development of leaders depends on discouraging widespread intervention, while promoting the ideas of responsibility, ethical values, and moral courage.

Abstract of

TECNOLOGY AND INTERVENTION:
THE NEGATIVE IMPACT ON FUTURE LEADER DEVELOPMENT

Technology has provided some dazzling changes to communications, weapons, and systems development. It has opened the door to communicate to all ends of the world, and the battlefield as well. One negative aspect of these advances has been the impact that technology has had on leadership. That is, the intervention that has been eased through communications advancements and made more tempting by the timeliness of its impact, has prompted leaders to resort to this behavior more often.

Once this behavior becomes a habit, it then displaces our ideas of "decentralized execution." Subordinates learn to expect and depend on the support of their superiors to make decisions. Although each service promotes the idea of "letting a leader make his own decisions," the pressures of today from media, politicians, and high-level military leadership leads many commanders to usurp this authority and intervene. As this becomes practice, our military culture changes as well.

Only through education can this tide be turned. A strong foundation, based on a wide variety of subjects, should be promoted throughout the military in order to give individuals the tools to make the right decision, no matter what the situation brings. Most of the problems of the future will be the same as the past, requiring moral courage, broad intellect, and flexibility that does is not always learned through a technologically based education and training background.

If the military becomes overly infatuated with technology and its promises, the changes in culture and the weakening of leadership development could happen slowly, without warning. With an eye on the past, the future development of leaders depends on discouraging widespread intervention, while promoting the ideas of responsibility, ethical values and moral courage.

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Introduction

> *"At Pearl Harbor, Admiral Nimitz, who had been listening in on all radio communications and watching the progress of the battle on the operations chart, at length felt compelled to intervene. He sent a sharp and laconic message...the dispatch seemed to be couched in insulting language: "Where is, repeat where is, Task Force 34? The world wonders."*[1]

The dispatch that Admiral Nimitz sent to Admiral Halsey during the Battle of Leyte Gulf, illustrates a circumstance that could become common practice. Nimitz, using the technology of 1944, broadcast his curiosity for all to hear—essentially questioning Halsey's movements—just after Halsey had turned his fleet in the "wrong" direction. Implicitly, at least, Nimitz intervened into his subordinate Halsey's actions. Though the meaning of the message caused great controversy, the incident illustrates a link that technology has provided for many years. Today, communications systems permit exchanges between superior and subordinate in real-time, much faster than those of 1944, making it increasingly likely and even more tempting for commanders in positions like that of Nimitz to intervene. Although it is certainly necessary, and at times crucial, that superior discretion be exercised during military operations, there are consequences that come with the practice of intervention. With a shift in authority to make decisions, whether real or perceived, subordinates might grow to anticipate or expect their superior commanders to broker decisions for them. If this practice were to become habitual, it would displace the tenet of decentralized execution. Worst of all, it would then produce relatively few chances for the development of strong leaders; leaders with initiative, drive, and the ability to make good, independent decisions. If we incrementally weaken the development of our future leaders through habitual intervention, in the process we

will, to some extent, also alter one of the cornerstones of military culture--the leader, and ultimately could put the success of future joint operations at risk as well.

A Revolution in Military Affairs?

> *"The implications of improved systems integration are both profound and complex. New technologies will increase capability at lower echelons to control more lethal forces over larger areas, thus leveraging the skills and initiative of individuals and small units. These capabilities could empower a degree of independent maneuver, planning, and coordination at lower echelons, which were normally exercised by more senior commanders in the past. Concurrently, commanders at higher echelons will use these technologies to reduce the friction of war and to apply precise centralized control when and where appropriate."[2]*

The potential of future systems has spurned a growing infatuation with technology that is prevalent today in all of the services. Protestations abound of the promise of future advances: *"we are in the midst of a revolution in military affairs (RMA) unlike any seen since the Napoleonic Age, when France transformed warfare with the concept of levee en masse,"[3]* or, *"technology could enable U.S. military forces in the future to lift the 'fog of war'...battlefield dominant awareness—the ability to see and understand everything on the battlefield—might be possible,"[4]* These innovations are undeniably exciting. Information, speed, and weapons advancements may certainly allow domination in many instances. The military acknowledges the potential effects of technological advances and information superiority, and are important themes which are woven throughout the military's Joint Vision 2010 document.[5]

Perhaps one of the broadest "templates" of future warfare, Joint Vision 2010, offers a peek into how our top military leaders view the services working jointly, using technology and many other factors, to meet the demands of future conflict. The image provided by this document argues that technological "opportunities" will provide the

impetus for the future success of joint warfighting. Admirably, Joint Vision 2010 does not disregard the value of people and it warns of a developing problem with decentralized control as new technologies are acquired. It is admitted in the document that the "optimal balance between centralized and decentralized command and control will have to be carefully developed as systems are brought into the inventories."[6] What is realized in Joint Vision 2010 is that the speed and the amount of information that could be put into one commander's hands could be overwhelming. Information overload at any level of command, but especially at the tactical level, could cause confusion that would assuredly rival Clausewitz's "friction of war."[7] Without a framework to guide the introduction of new systems, command and control authority could theoretically transfer either way—to the side of the operator or to the side of the commander. There is, however, no solution for delineating decisions presented within Joint Vision 2010.

These potential technological advantages hint that future commanders will have more means at their disposal to reach the span of their operational control. If the practice of "reaching out" becomes a natural occurrence because of technology, more aspects of an operation could be centrally controlled than ever before. Today, however, decentralized execution, or letting a commander make decisions, is still central in all of our individual service doctrine, which implies it is still an important principle.

Current Doctrine

> *"In battle, initiative requires the decentralization of decision authority to the lowest practical level. At the same time, decentralization risks some loss of synchronization. Commanders constantly balance these competing risks, recognizing that loss of immediate control is preferable to inaction. Decentralization demands well-trained subordinates and superiors who are willing to take risks."[8]*

In essence, what we espouse in our military doctrine sheds light on our beliefs and feelings as an organization. Doctrine, we know, is central to our culture in the military. As part of that doctrine or culture, the philosophy of allowing a commander at even the lowest level to think for himself and make independent decisions is professed by all of the services. What is more, this shared tradition represents a unique practice which is attractive to those who join the military: that is the opportunity to lead people early in a career, to make decisions, and to use initiative. The passage above was taken from FM-100-5, the Army's "keystone warfighting doctrine."[9] The Army, however, is not alone in the commitment to decentralized decision making. This idea is stated with nearly the same prominence in the other services' doctrinal literature.

In Air Force doctrine, this belief is explicitly described as one of the eight tenets of airpower.[10] Holding up the example of Vietnam, where lack of centralized control over missions led to the "fragmentation" of the command of U.S. airpower, the Air Force advocates first the prominence of centralized control. Observant that decentralized execution must coexist with the former, it too is promoted with the idea that *"delegation of execution authority to responsible and capable lower-level commanders is essential to achieve effective span of control and to foster initiative, situational responsiveness, and tactical flexibility."*[11]

In step with the other services, Naval doctrine offers its concept of decentralized execution as "unity of command." Despite the change of nomenclature, the Navy view is not in discordance with that of the Air Force or the Army, as it explains that after a commander expresses his intent, *"he permits subordinate commanders to make timely critical decisions and maintain a high tempo in pursuit of a unified objective. The result*

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is success, generated by unity in purpose, unit cohesion, and flexibility in responding to the uncertainties of combat."[12]

These doctrinal passages offer substantiation that leadership, decision making, and initiative, tied into the standard of decentralized execution, are integral doctrinal concepts for performing the mission of each service. Doctrine supplies time-tested guidance for a wide variety of military operations, and provides coherent direction to soldiers, airmen and seamen. By allowing subordinates make their own decisions, the tenet of decentralized execution becomes fundamental to military culture.

Moving Closer to the Future

> *"What I observed was a classic example of what I term "the six thousand mile screwdriver"—the minute direction of the day-to-day operations of a field commander by higher and remote authority. In Grenada I found myself politically in an almost identical situation, in terms of actual operational control."[13]*

Move forward in history, nearly forty years, to 1983 and the Grenada Operation also known as "Urgent Fury." The recollection of Vice Admiral Joseph Metcalf shown above, reveals a similarity to the intervention of 1944. Although interference in both cases is a commonality, the situation that Metcalf experienced as the commander of Joint Task Force (JTF) 120 is a direct result of the advancement of technology. Direct communications, conducted at a rapid, measured rate left Metcalf feeling enabled by technology on one hand, but constrained by the control imposed by his superiors on the other. One distinct memory from the operation of October 1983, was his feeling of being under a microscope. He noted that he spent almost half of his time as operational commander communicating with his superiors. In fact, to circumvent this taxation on his time as a commander, he deliberately organized his staff with the intent to "not only

inform my seniors but to keep their staffs busy."[14] Metcalf thought that his superiors were like most people in the military who liked delegation of authority, but "only down to their level of command, ... below that level they strive for centralized control."[15] Certainly this is a clear example of an operational commander, who was well aware that intervention had become common place, and decentralized control was not so decentralized.

Metcalf described his personal style of command to be more "hands off," but it is likely that interference from higher echelons was felt at all levels of operations. Officers who could have been learning "operational art," were relegated to being a human barrier of information control and administrative trivia. There is little question that in military operations other than war (MOOTW) like "Urgent Fury" some degree of control from higher authorities is needed depending on the political sensitivity. However, the point of this example is the acculturation of micro-management. Admiral Metcalf's career experiences prompted him to proactively put a system in place to ward off meddling that he knew was inevitable. His behavior suggests that an organizational practice had matured to the point of becoming expected. Metcalf planned to prepare himself, and his subordinates, for the interference that had become habit through the innovations of technology.

This example is not meant to denounce technology as the "devil in disguise." In this case, operational success was not denied by technology. However, if we realize the time and human effort invested to ward off control—control that was perpetuated by modern systems—the drawbacks are apparent. The operational commander spent half of his time trying to overload his superiors with information in order to have the chance not to be told

what to do at each turn. In this process, he set in motion a staff of subordinates who would live and learn this method of dealing with higher echelons during perhaps their one and only real world operation. Excessive interference or close-watch monitoring can produce a potentially negative effect on decentralized execution as illustrated in this type of operation. In day-to-day management, over time it can become distracting.

Organizational Culture

> "Chaing continued his habit of 'command' via detailed written orders from Nanking, which helped to lose the decisive Huai-hai campaign. Communist leadership in contrast was excellent, with the different army leaderships exercising initiative in their areas of operations while cooperating toward the common goal. When it was all over, Chaing fled to Taiwan, characteristically leaving his old rivals Li Tsung-jen and Yen His-shan holding the bag on the mainland."[16]

As Clausewitz pointed out, "war is a special activity, different and separate from any other pursued by man."[17] Despite changing technologies, this statement still holds true today. Our military culture, is formed to a large extent by how we train, our educational content, our accepted practices, and the customs and values that are promoted from within our military society. In this paper it is not important to touch upon all facets of organizational culture. However, it is important to realize that there is a natural relationship between doctrinal ideals, such as decentralized execution, and the culture that creates them. If the execution authority for decision making at operational or tactical levels changes, whether real or perceived, the culture of the organization will change as well. This will impact our people and their expectations or understanding of the system. Without an environment that limits the habitual use of intervention, or a method of delineating decision making processes, this practice becomes an element of military culture—a part of military culture that could inhibit the evolution of future operational

leaders. If you set in organization in motion which is dependent upon direction, you take away initiative. Morale usually falls because individuals lose the feeling of making a contribution. In turn, development of junior or mid-level leaders usually is negatively affected.[18]

Leaders or Commanders?

> *"Network-centric warfare should become the compelling theme in the Joint Military Operation, or JMO curriculum. ...More specifically, network-centric warfare enables promising alternative concepts of command, command relations, and command-and-control processes. Furthermore, there is the fundamental question of what it is that the commander commands—forces, information services, or key processes?"[19]*

The question above poses an interesting argument. Is it plausible that the complexity of future systems may be as such that a leader will, by default, be the person who masters the technical processes that enable forces to fight successfully? If that is the case, the ability of individuals to grasp, master, and utilize advancing systems could become the bench mark for identifying individuals for leadership positions. This would be akin to promoting individuals for political reasons or because of "organizational nepotism." Part of the debate in deciding "what will commanders command?" is to answer what will happen if commanders become "information services" or "key process" commanders. To develop technically competent operators without detracting from leadership development seems to be the issue at hand. It is not easily apparent what advancements will bring to the balance of centralized control and decentralized execution. If technological competence is the most important factor, we must realize the dependency that this establishes on the systems and the individuals with the skills to operate them.

There are doubters to the promise of technology to fulfill the expectations of those who espouse its magnificence. General Henry H. Shelton, current Chairman of the Joint

Chiefs of Staff, put his skepticism on the growing fervor for the promise that many feel about technology when he stated:

> "We must never fall into the trap of thinking that simply by fielding new and better systems we will maintain our lead. History has taught us over and over again that technology alone is not the answer. The quality of our people, the caliber of our leaders, and the operational concepts and doctrine we use to employ technology on the battlefield—they are the decisive factors."[20]

Future operational commander, or not, all officers will face a multitude of complex issues at various stages in their careers that will require not only technical skills, but those of personal and professional moral courage. Few can forget the difficult times of an Ollie North, the bombing of barracks in Beirut and Saudi Arabia, the series of sexual misconduct episodes—from "Tailhook" to Lieutenant Kelly Flinn. These incidents, while not operationally oriented, offer insight into the multitude of problems that, when dramatized by the media, become the hardships that test and weaken the moral character of our military. While this may seem out of context, let us not forget that those individuals that will become operational commanders, step to that pedestal from the domain of organizational leadership. From this organizational perspective, their leadership skills should have been developed, tested, and refined. Technological training would not prepare a commander for handling these types of issues. Only a broad based educational or experiential base could help support the leader who encounters problems such as these.

In joint military operations the commander or leader will also face problems that may not have "technical" solutions. There are a vast array of issues such as "rules of engagement," interoperability of equipment, cultural and language barriers, or political

questions, that cannot be solved with our technology. Until the future helps to sort out many of those issues, the services should be educating and training with an eye on the past. Through education and training, our goal in peace or war should be to alleviate barriers that short-circuit leadership and its development, and create means that sustain its prosperity. The premise that "computers and new informational technology can only aid, but not replace the human element,"[21] should be an underlying theme of all learning. Even if it happens that a commander is only commanding "information" or "key processes," there will always be a human link. The military does not appear ready to pronounce the tank commander or the fighter pilot as merely "weapons deliverers," or "bus drivers."

The Keystone: Education

"I'm not saying that we should base education on training people to be in prison, but I am saying that in stress situations, the fundamentals, the hard-core classical subjects, are what serve best."[22]

Admiral James B. Stockdale, while president of the Naval War College, forged a means to impart some of the tools that helped him endure one of the ultimate tests of a military officer—seven years as a prisoner of war in Vietnam. The course, titled "Foundations of Moral Obligation," was a departure from the normal curriculum, but it set out to educate military officers in a more broad manner. Offering readings and lectures discussing a wide variety of philosophers, it carries out the conviction Stockdale himself felt in the passage quoted above. This course, and those like it, add immensely to the education of officers and leaders by providing a landscape of classical thought from which leaders can use during tough times and with tough decisions. As one professor noted of the reaction to the course: "All applauded the opportunity to read the works that

were discussed. For the greater part of their military careers, these officers had concentrated on technological subjects."[23]

But why study philosophy? For instance, the Aristotelian model of the "median" and how it relates to virtues is a great starting point in developing a strong foundation for coping with a multitude of decisions. Aristotle surmised that if you developed individuals who understood the excess and deficiency in virtues such as courage, wisdom, ambition, truthfulness, they would then be able to make good decisions.[24] This foundation provides the tools to be a "good person." From that point, individuals would necessarily be able to respond to crises and dilemmas, much like Stockdale did, with the right outcome.

Another educational approach is to focus on the systems aspect of technological advances. This focus should not converge on just the capabilities of systems, but should equally center on the paradigmatic shifts that are created when technology changes. If we concede that future systems discourage decentralized execution, consideration should be given as to when intervention is most likely, and if it is appropriate. Case studies which do not always pursue a line of critiquing the actions and decisions of leaders, should attempt to delineate examples such as the Leyte Gulf affair. As Clausewitz pointed out, "if the critic wishes to distribute praise or blame, he must certainly try to put himself exactly in the position of the commander; in other words, he must assemble everything the commander knew and all the motives that affected his decision, and ignore all that he could not or did not know, especially the outcome."[25] By examining the intentions of Nimitz, or the information wall set up by Metcalf, both good and bad ideas can be deduced, giving credence to acceptable limits of intervention. Leadership development

would then be focused to either support or refuse the concept of decentralized execution with regards to technological advancements. Joint Vision 2010 has correctly identified part of the problem, but the connection between new command and control structures and the development of leadership should be highlighted as a potential problem. It is of paramount importance to formulate the correct doctrine for using technology as systems are further enhanced. If not, the consequences will be felt and undesirable or potentially harmful organizational changes will take place.

Conclusion

> *Napoleon said "many of the decisions faced by the commander-in-chief resemble mathematical problems worthy of the gifts of a Newton or Euler,"*[26]

The days of using real-time communications are upon us. Hopefully the habit of intervention will not supplant the idea of decentralized execution, and in a way forever alter the culture of the military. The military should take care not to become infatuated so much with the capabilities of technology that it loses sight of "minding the shop." Despite advances in weapons, communications, and technology, which will inevitably come, the problems leaders encounter will require more than a strong technical background. Our culture in the military depends on strong leaders, and the development of those leaders depends on a broad foundation of education, not just technical training. The difficulties of leadership cannot be enhanced enough by technology to make the job easy or fit for just anyone. The problems that faced Alexander, Napoleon, Moltke, or Nimitz, will reveal themselves again, although possibly in disguise. It is imperative that the displacement of the principle of centralized control and decentralized execution, by means of technology, doesn't displace the development of future leaders. Leaders of

tomorrow will still need the timeless values presented by the likes of a Aristotle or Clausewitz. Most officers probably will not face operational level decisions; however, they will face issues where the honed values of moral courage, intellect, and integrity will be absolutely necessary in order to make the right decision.

The capabilities technology has delivered to our military systems are truly remarkable. Nevertheless, if we lust after technology's dazzling possibilities we will reshape our military and alter its culture. Blindly pursuing the promise of technology, at the expense of the human element could unintentionally change the focus of training and education. The problems of the future mandate a broad education that gives individuals the foundation to handle a multitude of complex issues, and the tools to become responsible leaders in the truest sense of the word.

Recommendations

> "As for intellectual training, the prince must read history, studying the actions of eminent men to see how they conducted themselves during war and to discover the reasons for their victories or their defeats, so that he can avoid the latter and imitate the former. Above all, he must read history so that he can do what eminent men have done before him: taken as their model some historical figure who has been praised and honored; and always kept his deeds and actions before them. In this way, it is said, Alexander the Great imitated Achilles; Caesar imitated Alexander; and Scipio, Cyrus."[27]

Based on the premise that systems will improve in the years to come, but problems facing leaders of the future will remain the same; here are two ways to help ensure future leaders will develop with the ability to successfully confront the problems they will face:

1. Educate individuals with a solid foundation. From that foundation they could develop into leaders with technical know-how who will, whether in day-to-day or operational duties, make the "right" decision based on strong character, moral courage, and ethical values. This first proposition is more behaviorally suited, and promotes a more broad

education covering subjects such as history, language, and philosophy, and can provide a solid foundation for anyone, based on time-tested ideas. This recommendation is made under the assumption that training and education is already highly technical today, and that an organization fed in this way will tend to promote operators more abundantly than true leaders. This "good person" theory does not rule out the likely possibility that most individuals who rise to high levels of responsibility will, by virtue of organizational dynamics or processes, have a great deal of technical competence at the time they are promoted to high level positions.

2. Leave the past behind and ensure future doctrine and culture promote the ideas that technology seems to hinder—that of individual initiative and independent decision making. This way of dealing with intervention is to accept it as fact, and then proceed to determine its proper application and orientation in today's military doctrine. Education and training should emphasize how decisions can be enhanced *with* technology, not driven because of it. Doctrine should be formulated to grow concurrently with advancing technology. Leaders who are not dependent on others' expertise of technology would enhance systems' effectiveness, and provide the human link to doctrinal development.

A combination of the two ideas would also suffice. In the end, it is important to strike the right balance in between classical and technological education and develop responsible leaders. It is imperative that now, during times of relative peace, there should be a distinct effort to examine values and the culture created in the military today by changes in technology and educate in broad terms—or risk the consequences.

Notes

[1] Potter, E.B., Sea Power: A Naval History, "The Battle for Leyte Gulf", pp. 788-789. Note: The ensign who encrypted the message at Pearl Harbor, following normal procedure, added random phrases ("padding") at both ends to increase difficulty of enemy cryptanalysis. He violated regulations by using end padding that could possibly be read as part of the text. On being queried later, he professed not to have recognized his mistake. "It was just something that popped into my head," he said.

[2] Chairman of the Joint Chiefs of Staff, Joint Vision 2010 , Pentagon, (Washington D.C.1997), p. 15.

[3] Cebrowski, Arthur K. and John J. Garstka, "Network-Centric Warfare: Its Origin and Future," U.S. Naval Institute Proceedings, (U.S. Naval Institute, Annapolis, MD

[4] Owens, William, former Vice Chairman of the Joint Chiefs of Staff, quoted in Mackubin Thomas Owens, "Technology, The RMA, and Future War," Strategic Review, Spring 1998, p. 63

[5] Joint Vision 2010, p. 15.

[6] Joint Vision 2010, p. 15.

[7] Clausewitz, Carl Von, On War, Edited and Translated by Michael Howard and Peter Paret, (Princeton, NJ 1976), 119-121.

[8] Headquarters Department of the Army, FM100-5 Operations, (Washington D.C., June 1993), p. 2-6.

[9] Ibid., p. iv..

[10] Headquarters Air Force Doctrine Center, Air Force Doctrine Document 1, (Maxwell AFB, AL, September 1997), p. 23.

[11] Ibid. p. p. 23.

[12] Department of the Navy, Naval Doctrine Publication 1-Naval Warfare, (Washington D.C., March 1994), p. 46.

[13] Metcalf, Joseph, III, "Decision Making and the Grenada Rescue Operation," from Ambiguity and Command Organizational Perspectives on Military Decision Making, by James G. March and Roger Weissinger-Baylon, p. 278.

[14] Ibid., p. 284.

[15] Ibid., p. 278.

[16] Dreyer, Edward L, China at War: 1901-1949, (New York: Longman Group Limited, 1995), p. 313.

[17] Clausewitz, Carl Von, On War, p. 187.

[18] Natter, John T., Alan Lopez, and Doyle K. Hodges, "Listen to the JOs," Proceedings, October 1998, p. 58-62. Writing on why retention is a problem in the Navy, the article states, "A staggering number of junior officers we met with felt micromanagement was pervasive in their organizations and in the Navy overall. Most do not feel trusted to make decisions and are frustrated by constant, invasive, "in the weeds" rudder orders from their bosses. The average division officer today is being robbed of the opportunity to exercise leadership and to learn from his or her mistakes while taking responsibility for decisions.

[19] Cebrowski, Arthur K. "President's Notes," Naval War College Review, Winter 1999, p. 10. This statement was taken from a text prepared for publication. The text notes "On 18 August 1998, at the annual Naval War College Convocation ceremony—which assembled the new student body, their families, and the faculty and staff of the College on Colbert Plaza—Vice Admiral Arthur K. Cebrowski, USN, President of the Naval War College, opened the 1998-1999 academic year with remarks adapted here for publication.

[20] Shelton, Henry H., remarks from a lecture at the Ben Graves Erskine Distinguished Lecture Series, Marine Corps University, 10 February 1998, from "Operationalizing Joint Vision 2010," Airpower Journal, (Maxwell AFB, Montgomery AL, Fall 1998), p. 104.

[21] Vego, Milan "Operational Leadership," On Operational Art, (Naval War College, Newport, RI, September 1998) p. 330.

[22] Stockdale, James B. "The World of Epictetus," The Atlantic Monthly, April 1978

[23] Brennan, Joseph Gerard, Foundations of Moral Obligation, (Naval War College Press, 1983), p. xxiii..

[24] Aristotle, Nicomachean Ethics, Translated with an Introduction and Notes by Martin Ostwald, (Macmillan, 1989)

[25] Clausewitz, Carl Von, On War, Edited and Translated by Michael Howard and Peter Paret, (Princeton University Press, 1976), p. 164.

[26] Ibid. p. 112. Clausewitz describes the difficulties associated with being a commander-in-chief.

[27] Machiavelli, Niccolo, <u>The Prince</u>, (London: Penguin Books 1995) p. 47.

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